

REMARKS

This application has been reviewed in light of the Office Action dated January 13, 2006. Claims 1-31 are presented for examination, of which Claims 1, 6, 11, 12, 16, 19, 20, 22 and 24-30 are in independent form. Claims 7-10, 17 and 23 have been amended purely as to matters of form not affecting the scope of any claim recitation. Claim 31 has been added to assure Applicants of a more complete scope of protection. The specification has been amended as to matters of form. Favorable reconsideration is requested.

Initially, Applicants note that on the summary page of the outstanding Office Action, the Examiner marked box 12, acknowledging receipt of Applicants' claim for foreign priority, but did not explicitly acknowledge receipt of the required certified copy of the priority document. In fact, that certified copy was filed on January 25, 2002, and Applicants note that that filing is reflected in PAIR (see the attached two pages printed out from PAIR). Accordingly, Applicants request that the Examiner take whatever action (if any) is needed to ensure that the foreign-priority information is printed on the face of any patent that may issue from this application.

In the outstanding Office Action, Claims 1-24 were rejected solely under 35 U.S.C. 102(e) as being anticipated by U.S. Patent 6,281,874 (Sivan). Applicants have carefully studied the Office Action and the prior art, but find themselves entirely unable to agree with the rejection, for the following reasons.

As explained in the specification, one problem that has been encountered in the quickly advancing field of digital radiology is the relatively low compression rates that are sometimes available, and that, in combination with a low-throughput (low-bandwidth) element in a network, e.g., a computer through which the data must pass, serious bottlenecks can occur. The

present invention provides various approaches to solving this problem. ^{1/}

Independent Claim 1, for example, is directed to an information processing apparatus for processing a data stream inputted via a network. The apparatus of Claim 1 comprises an input unit adapted to input a data stream via a network, and an analysis unit adapted to analyze the data stream. A generation unit, in accordance with an analysis result made by the analysis unit, interrupts input of the data stream performed by the input unit, to generate an interrupted stream from the data stream, and an interrupted-stream storage unit stores the interrupted stream generated by the generation unit. Also, according to Claim 1, in the analysis performed by the analysis unit, at least one of a compression ratio, a signal-to-noise ratio, an amount of data, and a number of layers of the data stream is employed as an analysis condition.

Sivan relates to a method and system for downloading graphic images on the Internet from a server which stores at least one high resolution graphic image file of a reference image and a corresponding low resolution graphic image file. The low resolution file is compressed and downloaded through the Internet to a client, where it is decompressed and displayed on a display device. A portion of the low resolution reference image displayed at the client is selected for zooming, and the client calculates size data specifying the portion. The size data is uploaded to the server, and the selected portion of the high resolution graphic image file is extracted from the server and downloaded to the client. If the selected portion does not have the same aspect ratio as the display device, a zoom ratio is calculated so that one edge of the selected portion completely fills the corresponding edge of the display device. If the selected portion is so small that even after zooming to the highest available resolution it does not fill the display

^{1/} It is of course to be understood that the claim scope is not limited by the details of this or any other particular embodiment that may be referred to.

device, the selected portion is zoomed so as to leave a peripheral sub-portion of the reference image surrounding the zoomed selected portion.

Applicants have found nothing in *Sivan*, however, that would teach or suggest “a generation unit adapted to, in accordance with an analysis result made by the analysis unit, interrupt input of the data stream performed by the input unit and generate an interrupted stream from the data stream” or “an interrupted-stream storage unit adapted to store the interrupted stream generated by the generation unit, wherein in said analysis, at least one of a compression ratio, a signal-to-noise ratio, an amount of data, and a number of layers of said data stream is employed as an analysis condition,” as recited in Claim 1.

For at least these reasons, Applicants submit that Claim 1 is allowable over *Sivan*.

Each of the other independent apparatus or system claims includes, at the least, recitations of a generating unit like that recited in Claim 1, and each is therefore also believed to be allowable over *Sivan* for at least that reason. Each of the other independent claims is, respectively, either a method or a computer memory medium claim corresponding to one or another of the apparatus or system claims, and thus also are believed to be patentable over *Sivan*.

A review of the other art of record has failed to reveal anything which, in Applicants' opinion, would remedy the deficiencies of the art discussed above, as a reference against the independent claims herein. Those claims are therefore believed patentable over the art of record.

The other claims in this application are each dependent from one or another of the independent claims discussed above and are therefore believed patentable for the same reasons.

For example, Applicants particularly note newly added Claim 31, which depends from Claim 6, and further recites that the input data is non-redundant hierarchy encoded data. This additional feature is also believed not to be taught or suggested by anything found or pointed out in the art of record. This non-redundant hierarchy encoded data corresponds, for example, to JPEG2000 encoded data (compression ratios of $\frac{1}{2}$, $\frac{1}{10}$, etc.) shown in unit 514 of Fig. 14. The lowest-quality image can be reproduced by decoding the compression ratio of $\frac{1}{2}$, a middling-quality image can be reproduced by decoding the compression ratios of $\frac{1}{2}$ and $\frac{1}{10}$, and a high-quality image can be reproduced by decoding the compression ratios of $\frac{1}{2}$, $\frac{1}{10}$ and the others. In the foregoing method which decodes the non-redundant hierarchy encoded data, to generate an interrupted-stream can eliminate unnecessary communication of the encoded data.


In contrast, the *Sivan* system uses a low-resolution image file for representing a low-resolution image and a high-resolution image file for representing a high-resolution image. That is, *Sivan* contemplates only using redundant hierarchy encoded data, and does not teach or suggest the feature of Claim 31.

In any event, since each dependent claim is also deemed to define an additional aspect of the invention, the individual consideration or reconsideration, as the case may be, of the patentability of each on its own merits is respectfully requested.

In view of the foregoing amendments and remarks, Applicants respectfully request favorable reconsideration and early passage to issue of the present application.

Applicants' undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our below listed address.

Respectfully submitted,


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This is to certify that the annexed is a true copy of the following application as filed with this Office.

出願年月日

Date of Application:

2000年12月 6日

出願番号

Application Number:

特願2000-371722

出願人

Applicant(s):

キヤノン株式会社

CERTIFIED COPY OF
PRIORITY DOCUMENT

2001年12月28日

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January 24, 2002

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In response to that Office Action, please amend the above-identified application as follows. The specification changes are at page 3, amendments to the claims are reflected in the listing beginning on page 4, and the Remarks begin on page 21.